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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,560	10/27/2003	Dan Schlager	SCHL-PAR2	9163
27627	7590	12/28/2005	EXAMINER	
ROBERT BUCKLEY, PATENT ATTORNEY P.O BOX 272 LIVERMORE, CA 94551-0272			TANG, SON M	
			ART UNIT	PAPER NUMBER
			2632	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/695,560

Applicant(s)

SCHLAGER ET AL.

Examiner

Son M. Tang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 and 8-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Piri et al. [US 6,545,606 ; Piri].

**Regarding to claim 18:** Piri discloses a self-contained, self-locating alarm system remote unit (PLB) for use with a parachute having means 210 for activating the remote unit [as shown in Fig. 1-2, col. 11, lines 60-67 to col. 12, lines 1-3], Piri does not specifically disclosing that the (PLB) is activated by deployment of the parachute. However, Piri stating that after aircrew ejected from an aircraft about 10-15 seconds PLB module 204 activates, that means after aircrew being ejected for about 10-15 seconds the parachute is being deployed, therefore, it would have been obvious of one having ordinary skill in the art at the time the invention was made to recognize that, when aircrew is ejected from an aircraft the parachute will deploy automatic or manually which activated the PLB unit.

3. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Piri et al. in view of Hoffman et al. [US 5,742,233; Hoffman].

**Regarding to claim 11:** Piri discloses an alarm system remote unit (PLB) equipped parachute [shown in Fig. 1-2, col. 11, lines 60-67 to col. 12, lines 1-3], Piri does not specifically

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disclosing a base station that displaying navigational information from remote system. Hoffman teaches a base station 80 includes a display for displaying navigational information from remote unit 20 [as shown in Fig. 2 and 5, and cited in Abstract]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to have a display at a base station for displaying remote unit navigational information as suggested by Hoffman into the system of Piri, for the benefit of easy to identify the location and reduce tracking time.

4. Claims 1-6, 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piri et al. [US 6,545,606 ; Piri] in view of Penny, Jr. et al. [US 5,414,432; Penny].

**Regarding to claim 1:** Piri discloses a personal alarm system remote unit 101 equipped parachute, comprising:

- a GPS provides positioning information of remote unit 101, which is a navigational information [see Abstract lines 24-26 and col. 9, lines 64-66];

- a radio transmitter;

- means (sensor 210) for activating a transmission [see col. 11, lines 60-67];

- a parachute [col. 12, lines 1-3] containing the navigational receiver (GPS), radio transmitter and the transmission activating means (sensor 210) [as shown in Fig. 1-2], Piri does not specifically disclosing that a radio transmitter connected for transmitting the navigational information. It is clear in the art that, GPS system uses for determining the remote unit position/navigation. Penny teaches a position locating transceiver system comprising a navigational receiver (68) and transceiver (62) for transmitting the navigational information [as cited in Fig. 2, col. 2, lines 17-23]. It would have been obvious of one having ordinary skill in the art at the time of the claimed

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invention, to transmit GPS navigational information as suggested by Penny into the system of Piri, for the advantage of faster locating and accurate.

**Regarding to claims 2-3:** Penny further discloses that the transmission of navigational information is voice activated or panic button [col. 6, lines 55-59].

**Regarding to claim 4:** Piri further discloses that the personal locator beacon (PLB) activates when the aircrew is ejected from an aircraft [as cited in col. 11, lines 59-68]. However, Piri stating that after aircrew ejected from an aircraft about 10-15 seconds PLB module 204 activates, that means after aircrew being ejected for about 10-15 seconds the parachute is being deployed, therefore, it would have been obvious of one having ordinary skill in the art at the time the invention was made to recognize that, when aircrew is ejected from an aircraft the parachute will deploy automatic or manually which will activate the PLB unit.

**Regarding to claims 5-6:** Piri and Penny discloses all the limitation as described above, they fail to specify that the receiver is a hybrid GPS. It is clear that hybrid GPS receiver commonly known as satellites networking for position error correction, therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to recognize that, to implement hybrid GPS receiver for enhancing precisely position.

**Regarding to claim 8:** Piri and Penny discloses all the limitation as described above, Penny further teaches the navigational receiver 68 provides demodulated GPS data [col. 6, lines 4-8] and the radio transmitter transmits the demodulated GPS data (local position) and precise time-of-day (TOD) information [see col. 8, lines 50-53].

**Regarding to claim 9:** Piri and Penny discloses all the limitation as described above, they fail to specify that navigational receiver calculates time delay of arrival location

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information. It is clear in skill of the artisan that, the location information being determined based upon the time delay of arrival signal at the receiver from the satellites, therefore it would have been obvious of one having ordinary skill in the art to recognize that, navigational receiver provides calculated time delay of arrival location information in order to determine a location of remote unit.

**Regarding to claim 10:** Penny further teaches the radio transmitter is a cellular telephone [cited at col. 4, lines 20-35].

**Regarding to claim 12:** Piri and Penny disclose all the limitation as described above, Piri further discloses that the alarm system remote unit PLB is fitted on the carrier pack for a parachute, which is obviously be able to detachable from the parachute harness.

**Regarding to claim 14:** Piri further discloses the alarm system remote unit is shock and water resistant housing [cited in col. 9, lines 16-18].

5. Claims 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Piri et al. in view of Penny, Jr. et al., and further in view of Mohan [US 6,121,922].

**Regarding to claim 13:** Piri and Penny discloses all the limitation as described above, except for not specifically teach a GPS location display on the remote unit. Mohan teaches a tracking system comprising a GPS location display on the remote unit [as shown in Fig. 4, col. 2, lines 39-43 and col. 6, lines 16-36]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to have a display on the remote unit as suggested by Mohan into the system of combination above, so user is being able to see his/her location.

6. Claims **15-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Friddle, II et al. [US 4,659,042] in view of Piri et al. [US 6,545,606].

**Regarding to claim 15:** Friddle et al. disclose a parachute for use with a self-locating personal alarm system comprising:

- a parachute having a riser [12] is a portion of a canopy harness [Fig. 1];
- the harness including a means [11C and 11] for attaching a self-contained self-locating personal alarm system;
- a means for activating an attached remote unit met by a reed switch [28] of Fig. 2 and col. 5, lines 39-55. Friddle et al. does not specify that the remote unit is activating when the parachute is deployed. Piri et al. teach a personal locator beacon (PLB) system, and shows that (PLB) activates after the aircrew member is ejected from an aircraft for about 10-15 seconds [as cited in col. 11, lines 59-68], although Piri et al. does not specifically stating that (PLB) is activated by deployment of the parachute, it is clear that the parachute has to be deployed after the aircrew member being ejected. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that, when aircrew is ejected from an aircraft the parachute will deploy automatic or manually, that will activate the (PLB).

**Regarding to claims 16-17:** Friddle et al. further disclose wherein the attaching means is a pocket [11] and means is a fastener (met by stitch [16B]) disposed on the harness, and the remote unit is placed within the pocket [see Fig. 1].

*Response to Arguments*

7. The Declaration under 37 CFR 1.132 filed 10/05/05 is insufficient to overcome the rejection of claims 1-6,8-15 based upon the rejection under 35 U.S.C. 103(a) over Piri et al. (US 6,545,606), Penny, Jr et al. (US 5,414,432) and Hoffman et al. (US 5,742,233) as set forth in the last Office action because:

- 1) Piri et al. disclose a portable device which transmits a finding direction information to rescue base station, and also Piri et al. clearly suggested that the PLB 101 is being able to incorporate the GPS system for absolute positioning (means location information) [see Abstract and col. 9, lines 54-66], although, Piri et al. does not specifically provide more details about the GPS information in the system, because the transmission coded information of a GPS system is well known in the art, which already cited in US Pat. 6,011,510 at col. 3, line 22 and US Pat. 5,726,663 at col. 4, line 11. Therefore, it is obvious to one skill in the art that the GPS absolute positioning coded information would be able to transmit with or without finding direction information to the base station in the same transmission.
- 2) Penny teaches that “various human oriented I/O devices 89, (for example or including) a microphone, a speaker, a display, a keypad and a emergency button for initiating an emergency alarm condition (cited col. 6, lines 55-59), which means that those human input/output devices use for initiating an emergency alarm condition that includes a microphone which uses for voice activation or initiation alarm condition.
- 3) Hybrid GPS is known in the art for enhancing an accurate position determination, which uses both satellites and ground-based transmitter. Therefore, it is obvious to one skill in the art want



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to have a precisely position determination, without any error. Examiner cited prior arts that implement Hybrid GPS for position determination.

4) Penny teaches receiver 68 is a GPS receiver which inherently includes a demodulator for demodulating information received from GPS satellite 24, and local position information can be calculated in some convenient coordinate system, but not limited to latitude and longitude [see col. 5, lines 25-35], which means that the local position information of the system can be determined in many appropriate position information. Further more, latitude and longitude information is navigational information.

5) Penny uses satellite cellular communication system of Motorola, Inc., wherein “cellular communication of Motorola” means cellular phone system as met by the claimed “satellite phone” in claim 10.

### **Respond to Remark**

Regarding claims 1 and 11, as the “navigational information” of Piri et al. has clearly explained in step 1) of the Respond to Argument above, and Hoffman used in the rejection merely to show a display that displaying position information at the base station, which is perfectly combinable, since both references are in same field of the invention.

Regarding claims 2 and 3, Please refer to step 2) of the Respond to Argument above.

Regarding claim 4, Please refer to step 1) of the Respond to Argument above.

Regarding claims 5-6, Please refer to step 3) of the Respond to Argument above. Further more, Penny specifics show the method to assisted GPS system, such as satellite 30, 32 and station 40, 42 uses to transmit information between handset and base station [see col. 5, lines 35-57].

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Regarding claim 8, Refer to step 4) in Respond to Argument above, and the claimed of final determination of geo-location is completed outside the remote unit is not claimed in the claim, claim merely claimed “transmits the demodulated GPS data and precise time-of-day information”. Further more, Penny teaches (TOD) time of day is being transmitted to base station along with local position (col. 8, lines 143-54).

Regarding claim 9, the obviousness of calculated time delay of arrival location information” has addressed in the rejection, and further more in Penny (col. 8, lines 16-42).

Regarding claim 10, Please refer to step 1) in Respond to Argument above.

Regarding claims 12-17, refer to step 1) in Respond to Argument above.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ethridge [US 5,798,733], Buno et al. [US 6,538,601], Flick [US 6,606,561], Ramesh [US 6,636,740] and Schuchman et al. [US 5,365,450].

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M. Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son Tang

  
**BENJAMIN C. LEE**  
**PRIMARY EXAMINER**